

C/007/039 Incoming

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cc: Steve C

Canyon Fuel Company, LLC
Dugout Canyon Mine
P.O. Box 1029
Wellington, Utah 84542

March 13, 2012

Milton & Ardith Thayn Trust
C/O David Thayn
7732 East US Highway 6
Wellington, UT 84542

RE: Pre-subsidence Survey – Addition of Twenty Acres to the UDOGM Permit Area.
Surface is Owned by Thayn Trust (Section 25, T13S, R12E)
Dugout Canyon Mine, Canyon Fuel Company, LLC, C/007/039, Carbon County, Utah

Dear Mr. Thayn;

The following information is provided in accordance with requirement of Utah State Regulations R645-301-525.100, Pre-subsidence survey.

As clarification the definition of "renewable resource lands" as referenced in the following regulations has been provided per R645-100-200, Natural Resource: Oil, Gas and Mining; Coal, Administrative.

"Renewable Resource Lands" means aquifers and areas for the recharge of aquifers and other underground waters, areas for agricultural or silvicultural production of food and fiber, and grazing lands.

525.100 Pre-subsidence survey. Each application for UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES will include:

525.110 A map of the permit and adjacent areas at a scale of 1:12,000, or larger if determined necessary by the Division, showing the location and type of structures and renewable resource lands that subsidence may materially damage or for which the value or reasonably foreseeable use may be diminished by subsidence, and showing the location and type of State-appropriated water that could be contaminated, diminished, or interrupted by subsidence.

Maps currently within approved Dugout Canyon Mine, Mining and Reclamation Plan (M&RP):
Maps are available for review at the Utah Division of Oil, Gas and Mining offices in Price and Salt Lake City, Utah.

Plates

- 1-1 Surface Ownership
- 1-2 Coal Ownership
- 1-4 Dugout Canyon Mine Permit Area
- 2-1 Native Soil Types Present in Dugout Canyon Mine Permit Area

- 3-1 Vegetation

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- 4-1 Land Uses
- 5-7 Proposed Mine Sequence and Planned Subsidence Boundary
- 7-1 Hydrologic Monitoring Stations
- 7-2 Water Rights

Fifty acres (Federal Coal Lease U-07064-027821) were added to the permit boundary, the acreage included twenty acres in Section 23, twenty acres in Section 25 and ten acres in Section 26, T13S, R12E. The surface acreage in Section 25 is owned by Thayn Trust.

525.120 A narrative indicating whether subsidence, if it occurred, could cause material damage to or diminish the value or reasonably foreseeable use of such structures or renewable resource lands or could contaminate, diminish, or interrupt State-appropriated water supplies.

Although not anticipated, information to address subsidence is provided in Sections 332, 521, 525, 531, 623, 625, 632, 642, 727 and 830 of the Dugout Canyon Mine M&RP.

To the best of the knowledge of Canyon Fuel Company, LLC – Dugout Canyon Mine and according to aerial photographs (November 2006) taken of the area, there are no structures in the area being incorporated into the permit boundary and only development mining will occur in the area. No material damage to diminish the value of the renewable resource land is anticipated since only development mining will be done. Should damage occur, repair or compensation is discussed in Section 525 of the M&RP.

Section 727 of the M&RP provides a description of the measures to be taken to replace adversely affected State-appropriated water supplies or to mitigate or remedy any subsidence-related material damage to the land.

525.130 A survey of the condition of all non-commercial buildings or occupied residential dwellings and structures related thereto, that may be materially damaged or for which the reasonably foreseeable use may be diminished by subsidence, within the area encompassed by the applicable angle of draw; as well as a survey of the quantity and quality of all State-appropriated water supplies within the permit area and adjacent area that could be contaminated, diminished, or interrupted by subsidence. If the applicant cannot make this survey because the owner will not allow access to the site, the applicant will notify the owner, in writing, of the effect that denial of access will have as described in R645-301-525. The applicant must pay for any technical assessment or engineering evaluation used to determine the pre-mining condition or value of such non-commercial buildings or occupied residential dwellings and structures related thereto and the quantity and quality of State-appropriated water supplies. The applicant must provide copies of the survey and any technical assessment or engineering evaluation to the property owner and to the Division.

To the best of the knowledge of Canyon Fuel Company, LLC – Dugout Canyon Mine, there is no non-commercial buildings, occupied residential dwellings and structures related thereto, which may be diminished by subsidence, within the area encompassed by the applicable angle of draw associated with the proposed area to be added in association with the fifty acre federal lease modification.

A survey of the quantity and quality of all State-appropriated water supplies within the permit area and adjacent area is provided in Chapter 7 of the M&RP, the UDOGM water database at www.ogm.utah.gov, water rights at the Division of Water Rights office in Salt Lake City or the State Engineers office in Price.

If you require additional information or have information to be added to this survey, please call me at (435) 636-2869.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Vicky S. Miller". The signature is fluid and cursive, with the first name "Vicky" and last name "Miller" clearly distinguishable.

Vicky S. Miller

cc: Dave Spillman, with attachments
Daron Haddock, w/o attachments

Excerpt from the Dugout Canyon Mine SMCRA/UDOGM approved permit.

525 Subsidence

525.100 Subsidence Control Plan

Structures and Renewable Resource Lands. As noted in Section 521.100, no major electric transmission lines, pipeline, or agricultural drainage tile fields exist within the area of potential subsidence. As described in Section 527.100, the roads within the area of potential subsidence consist of private roads that are owned and maintained by the parent company of SCM and private citizens, including the Thayn family. These are unimproved dirt roads that may be used for access to the lease area. Localized damage that occurs to roads not owned by the parent company of SCM will be repaired to a condition acceptable to both the private landowner and SCM. No other structures are known to exist within the area of potential subsidence.

Renewable resource lands within the permit and adjacent areas are shown on Plate 4-1 and discussed in Section 411 of this M&RP. The area of potential subsidence is currently used for livestock grazing and wildlife habitat, with limited timber production on adjacent lands to the east of Dugout Canyon (see Section 411.120).

Mining Methods. As noted in Section 523, continuous miner and longwall mining methods will be used in the Dugout Canyon Mine. The size, sequence, and timing for the development of the underground workings are shown on Plate 5-7 and in Annual Reports.

Physical Conditions Affecting Subsidence. A detailed description of the physical conditions in the permit area that may influence subsidence (i.e., overburden lithology and thickness, coal seam thickness, etc.) is provided in Chapter 6. In particular, Plate 6-1 provides a surficial geologic map of the permit and adjacent areas, Plate 6-2 shows the locations of the coal-seam outcrops in the vicinity of the proposed surface facilities, and Figure 6-1, Plate 6-3, 6-3A and 6-3B provide geologic cross sections based on data collected from drill holes in the area. Furthermore, information related to the physical conditions which may affect mining is presented in Sections 622 (a discussion of the cross sections), 624.100 (a discussion of stratigraphic and structural conditions), and 624.300 (a discussion of rock clay content), as well as Appendix 6-1 (drill-hole logs).

Subsidence Control Measures. Most of the land within the permit area will eventually be affected by subsidence. Anticipated areas of subsidence are shown on Plate 5-7. This subsidence boundary was projected to the surface based on an angle of draw of 30 degrees as measured from the vertical as required in R645-301-525.542. It is presumed that the actual angle of draw will be less, based upon results of mining and subsidence in the general area. Plate 5-7 illustrates the projected extent of subsidence based on a 30 degree angle of draw. The primary areas where future subsidence is not anticipated are the areas overlying the previous workings shown on Plate 5-1 (since these areas will not be re-mined). Plate 5-7 also illustrates a subsidence buffer zone that extends beyond the limits of Federal Lease U7064-027821 and State Lease ML-48435. This buffer zone does not suggest that CFC will mine outside of the lease boundaries; however, it does indicate the limit of projected subsidence. Appendix 5-11 contains a report "Prediction of Surface Deformation Resulting from Longwall Mining" which discusses subsidence. The specific sections within the report discuss, subsidence mechanism; mining, geologic conditions and subsidence characteristics; predicted ground movements and the monitoring program. This information is provided per deficiencies in the 2005 mid-term review of the M&RP.

Subsidence Monitoring. Numerous control points have been established within the permit and nearby areas to assist in subsidence surveys (see Plate 5-7). Coordinates and elevations of these control points (as established in January 1984) are provided in Table 5-2. Coordinates and elevations of control points are also provided in the Mine's Annual Reports. The control points consist of traverse monuments, benchmark monuments, and survey stations which have been constructed generally as follows:

Future monuments and stations that are required for proper control will be installed to provide one monitoring point per panel. Since geologic and mining uncertainties often force a change in planned

mining sequences, future control points may be installed only after the mine panels are in their development phase.

Re-surveys will concentrate on areas which have been mined in the past or are anticipated to be mined within the upcoming year. Hence, the area of detailed survey may be expanded each progressive year.

Annual re-surveys of the mine permit area will produce vertical control at the same sites as the previous year. Information on each site will be produced annually while the area underlying the site is being actively mined or is still potentially subsiding. The subsiding areas which show no change for two consecutive years will be considered stable and will be omitted from further annual surveys. If additional mining is anticipated within the stable areas, these areas will again be added to the annual surveys.

In addition to the ground surveys, aerial photogrammetric methods will be included in the surveys when the areas become too large to feasibly handle with ground surveys. This method may be added to enhance the ground surveys and to cover larger areas as the mine expands. Visual checks for subsidence will be made during all surface activities, especially during water monitoring activities. These visual surveys will be used to detect surface irregularities and surface cracks.

Visual ground checks for subsidence will be made of areas surrounding monitored seeps, springs and streams during hydrologic monitoring. In addition, roads used to access hydrologic monitoring stations will be visually checked for evidence of subsidence during monitoring activities. The observations made during hydrologic monitoring will be included in the Mine's Annual Report.

Anticipated Effects of Subsidence. Based on experience in the region and the results of investigations performed by Dunrud (1976), future subsidence in the permit area is anticipated to result in the formation of tension cracks, with these cracks healing to some degree following formation. It is further anticipated that no substantial damage will occur to rangeland conditions as a result of subsidence within the permit area. The only potential effects in that respect will be the exposure of plant roots where tension cracks form.

It is not anticipated that material damage will occur to streams as a result of subsidence. Gentry and Abel (1978) demonstrated that topographic lows (e.g., stream channels) tend to be protected by upwarping of adjacent slopes during subsidence. Therefore, mining-induced surface fracturing should be very limited (or nonexistent) within stream channel areas. Any fracturing that does occur in stream channels is likely to fill rapidly as a result of sedimentation.

It is also not anticipated that subsidence will significantly affect springs within the permit and adjacent areas. Von Schonfeldt et al. (1980) found that uniform subsidence "rarely causes problems to renewable resources such as aquifers, streams, and ranch lands." Since second mining will occur uniformly across the permit area, the resulting subsidence should also be uniform, minimizing the potential impacts to overlying springs.

525.200 Subsidence Control

Adopted Control Measures. SCM has adopted a mining technology which provides for planned subsidence in a predictable and controlled manner. As planned, this subsidence will be uniform, thus minimizing impacts to surface resources.

Correction of Material Damage. No material damage of surface resources is anticipated as a result of subsidence in the permit area. However, should material damage occur, SCM will correct any material damage resulting from subsidence caused to surface lands to the extent technologically and economically feasible by restoring the land to a condition capable of maintaining the value and reasonably foreseeable uses which it was capable of supporting before the subsidence. In addition, SCM will notify the Division of any slide, rock fall, or other disturbance known to be caused by subsidence that will have an adverse effect on the environment.

Protection of Significant Surface Resources. None of the following exist within the area of potential subsidence associated with the Dugout Canyon Mine:

Public buildings or facilities,

Churches, schools, and hospitals,

Impoundments with a storage capacity of 20 acre-feet or more or bodies of water with a volume of 20 acre-feet or more,

Aquifers or bodies of water that serve as a significant water source for any public water supply system, or

Urbanized areas, cities, towns, or communities.

Hence, no special control measures are required to preclude subsidence impacts to these resources. Refer to Appendix 5-11 for additional discussion of subsidence.

525.300 Public Notice of Proposed Mining

Each owner of property or resident within the area above an underground mining block and adjacent area that may be affected by subsidence will be notified by mail at least 6 months prior to mining or within that period if approved by the Division. The notification will contain:

Identification of specific areas in which mining will take place;

Approximate dates the specific areas will be undermined; and

The location or locations where the SCM subsidence control plan may be examined.

727 Alternative Water Source Information

Water Replacement. The Permittee will replace the water supply of any land owner if such a water supply proves to be contaminated, diminished or interrupted as a result of the mining operations. First, a determination will be made by the Division in accordance with R645 - 301- 731.800 as to whether or not material damage has occurred. Then, in accordance with Regulation R645-301-525.510, Dugout Canyon Mine will correct any material damage resulting from subsidence caused to surface lands (which includes water rights), to the extent technologically and economically feasible, by restoring the land to a condition capable of maintaining the value and reasonably foreseeable uses that it was capable of supporting before subsidence damage. Negotiations will be held with the water right holders to determine the best plan of action and implementation of water replacement.